

Appendix 3.1 Kentucky's 79 conservation issues and associated actions.

Issue type		
Code	Issue	Conservation actions *
Siltation and increased turbidity		
1A	Coal mining	158, 159, 160, 161, 163, 164.
1B	Agriculture	158, 159, 160, 161, 163, 164.
1C	Road construction	158, 159, 160, 161, 163, 164.
1D	Urbanization/Development General Construction	158, 159, 160, 161, 163, 164.
1E	Silviculture	158, 159, 160, 161, 163, 164.
1F	Recreational activities (atv, horseback riding)	158, 159, 160, 161, 163, 164.
Aquatic habitat degradation		
2A	Navigational dredging/Commercial dredging	168, 170, 172.
2B	Gravel/sand removal or quarrying (e.g., mineral excavation)	138, 161, 164, 168, 170, 172, 176.
2C	Construction/Operation of impoundments (migration barrier)	166, 173, 181.
2D	Woody debris removal	160, 164, 165, 168, 170, 172, 176.
2E	Stream channelization/ditching	158, 159, 160, 164, 165, 168, 170, 172, 176.
2F	Riparian zone removal (Agriculture/development)	158, 159, 160, 161, 163, 164, 165, 168, 170, 172, 176.
2G	Water level fluctuations	166, 173, 186.
2H	Wetland loss/drainage/alteration	136, 138, 158, 159, 160, 161, 163, 164, 165, 168, 170, 172, 184, 185.
2I	Periodic cessation or removal of spring flows or seeps	138, 161.
2J	Alteration of surface runoff patterns (flow/temp regimes)	166, 174, 175.
2K	Transportation routes (fords and crossings)	138, 161, 164, 168, 170, 174, 175.
2L	Levee construction	181.
2M	Valley fills	138, 158, 159, 160, 161, 164, 168, 170, 176.
2N	Eutrophication (eg. of wetlands)	175.

Appendix 3.1 Continued.

Issue type		
Code	Issue	Conservation actions *
Terrestrial habitat degradation		
3A	Row-crop agriculture (conversion to, annual reuse of fields, etc)	1, 3, 5, 7, 8, 9.
3B	Mowing regimes	3, 5, 7, 10, 75.
3C	Lack of newly abandoned farmland	3, 5, 9, 10, 12, 13.
3D	Switch to cleaner agricultural practices	3, 5, 7, 9, 10, 14, 15.
3E	Livestock grazing	3, 5, 7, 17.
3F	Urban/residential development	19, 20, 21, 22, 25, 26.
3G	Shoreline development	3, 7, 27, 28, 29, 31, 32.
3H	Habitat loss outside of Kentucky	33.
3I	Conversion of native forest to short-rotation crop trees (pine, sycamore, cottonwood, etc.)	35, 36, 38, 39, 40.
3J	Bridge/Highway construction/maintenance	41.
3K	Surface mining	44, 45, 46, 47, 49, 50, 51, 52.
3L	Mine closures	53.
3M	Timber harvest	3, 36, 38, 39, 40, 54, 55, 57, 58, 59, 60.
3N	Removal of dead trees	61, 62.
3O	Reforestation	63.
3P	Pollution/toxicity (e.g., heavy metals, pesticides, herbicides, acid rain)	68, 69, 70, 71, 169.
3Q	Invasive/exotic plants (including fescue)	3, 5, 7, 17, 74, 75, 76.
3R	Habitat and/or Population Fragmentation	26, 80, 82, 83, 85, 138, 184, 185.
3S	Fire suppression/fire regime management	87, 88, 89, 90, 95.
3T	Suppression of disturbance regimes	3, 5, 7, 14, 95, 96.
3U	Loss, lack and degradation of special and unique microhabitats	97, 99, 100, 101, 102, 103, 107, 138, 184, 185.
3V	Long-term loss of hard mast trees (American Chestnut, poor oak regeneration)	108, 109.
3W	Cervid over-abundance	111, 112, 113.
Point and non-point source pollution		
4A	Acid mine drainage other coal mining impacts	158, 159, 160, 161, 164, 165, 168, 170, 174, 175, 176, 181.
4B	Waste water discharge (e.g., sewage treatment)	174, 175.

Appendix 3.1 Continued.

Issue type		
Code	Issue	Conservation actions *
4C	Toxic chemical spills	168, 174, 175.
4D	Oil and gas drilling operations associated runoff	168, 174, 175.
4E	Agricultural runoff – including fertilizers/animal waste, herbicides, pesticides	158, 159, 163, 170, 172, 176.
4F	Urban runoff	174, 175, 176.
4G	Chemical spills and contaminants (applied and accidental)	168, 174, 175, 178.
4H	Confined animal operations	168, 174, 175, 178.
4I	Runoff from transportation routes (deicing salt, gas, others)	168, 174, 175, 178.
4J	Barge traffic	168, 174, 177, 178.
4K	Industrial waste discharge/runoff	164, 168, 169, 170, 172, 175.
Biological/ consumptive uses		
5A	Predation from introduced species	114, 177, 179.
5B	Predation from native species	116, 179.
5C	Biological collection (overharvest)	178.
5D	Competition from introduced/invasive or native species	118, 138.
5E	Hybridization with closely related species	119, 169, 179.
5F	Low population densities	120, 138, 179, 180, 184, 185.
5G	Low population densities of hosts (mussels only)	179, 180.
5H	Isolated populations (low gene flow)	63, 68, 69, 70, 71, 120, 136, 138, 161, 179, 180, 184, 185.
5I	Commercial collecting for pet trade (overharvest)	123, 124, 169, 178.
5J	Incidental mortality due to commercial fishing/musseling (mortality and overharvest)	123, 125, 169, 178.
5K	Lack of suitable habitat for spawning, nesting, or breeding	3, 7, 126, 129, 136, 138, 164, 172, 184, 185.
5L	Parasitism and disease	132.
5M	Brood parasitism (Brown-headed Cowbird)	80, 82, 83.
5N	Hunting	135.
5O	Bait collection	178.
5P	Market hunting for human consumption	123, 124.

Appendix 3.1 Continued.

Issue type		
Code	Issue	Conservation actions *
5Q	Declining prey base	3, 7, 129, 136, 138, 160, 184, 185.
Miscellaneous Mortality Factors		
6A	Traffic/road kills	41.
6B	Man-made structures	142, 144.
6C	Powerlines	142, 144.
6D	Human disturbance (spelunking, destruction/disturbance of nest sites)	146, 147, 148.
6E	Illegal killing	151, 152, 169, 178.
6F	Wanton shooting/killing and unregulated take	153.
6G	Stochastic events (droughts, unusual weather, pine beetle damage, flooding etc.)	156, 184, 185.
Unknown factors/variables		
7A	Unknown threats	182, 183.

* See Appendix 3.3 for description of conservation actions.